Final
STAFF SUMMARY OF MEETING

ECONOMIC OPPORTUNITY POVERTY REDUCTION TASK FORCE

Date: 08/21/2013

Time: **12:03 PM** to **04:52 PM**

Place: SCR 356

This Meeting was called to order by
Senator Kefalas

This Report was prepared by
Larson Silbaugh

ATTENDANCE

Balmer	X
Exum	X
Hudak	X
Joshi	X
Marble	X
Pettersen	X
Saine	E
Ulibarri	X
Fields	*
Kefalas	X

X = Present, E = Excused, A = Absent, * = Present after roll call

Bills Addressed:	Action Taken:
Presentation by Working Groups	-
INews Presentation by Bert Hubbard	-
Presentation by working groups - Early Childhood	-
Presentation on PTC rebate program	-
Presentation: Steps to Economic Well-Being Index	-
Debrief and Future Meeting Agendas	-
Staff Presentations	-

12:03 PM -- Called to Order

The meeting was called to order by Senator Kefalas who noted that the meeting would start with presentations by the working groups.

12:12 PM -- Presentation by working groups - Early Childhood

Senator Hudak said there are two areas that the early childhood working group is going to focus on but they have not had a meeting on both issues. One is the Child Care Assistance Program (CCAP), which the group has not discussed. There is a joint meeting on August 29th with the Early Childhood and School Readiness Legislative Commission to discuss CCAP issues. The working group also decided to focus on the childcare tax credit. Some low income people are unable to qualify because they do not get the federal tax credit and the state credit is contingent on the federal credit. She added that $100 a year is about the max that people can get. The working group is looking into aspects of the tax credit and how to improve it and also how the Department of Revenue processes claims. The working group is considering at least four pieces of legislation.

Senator Kefalas wanted to know if the working group was looking at the cliff effect as part of CCAP.

Senator Hudak responded that there are several cliff effects in those programs and there are multiple facets to address. Some aspects may not be addressed but hopefully they can be addressed by other working groups.

12:18 PM -- Effective Use of Public/Private Resources Working Group

Senator Balmer mentioned that the working group had a presentation on Getting Ahead and Circles to Compete programs. Businesses sign contracts with employers to hire applicants who have completed one of the programs. They are looking to have more people go through the program and hire more veterans.

Representative Exum introduced the Employees First program from Goodwill. To enter the program, potential employees must be employment-ready with completed education and available childcare. The program does not provide soft skills, such as how to dress or show up on time. The program's top three objectives are to help prepare a resume, create an application, and develop interview skills. Rep. Exum asked why private employers are eligible for the program. The presenter answered that it was based on federal guidelines. There are 14,000 people in the program and it is part of the Department of Agriculture. One of the programs in Southern Colorado due to lack of funding. They are looking for matching state funds. The program had about 75,000 applicants but not all were participating in the Employees First program. The working group wanted to look at a work readiness certificate from the state which costs about $250 for each certificate. The program had looked at receiving state matching funds because they currently receive nothing. There were follow-up questions for the presenter.

Senator Balmer said the work group wondered if the job readiness certificate could help people get jobs. The program may need to be expanded or people need encouragement to get the certificate. The work group wanted to explore what is holding people up in terms of getting the certificate.

Senator Balmer then discussed a Denver Regional Council of Governments presentation. The presenter showed that community-based services provide good value relative to being in a medical facility. In home delivery of meals and doctor visits cost $350 per month, but it is much more expensive if they are in assisted living or some other care. Taking services to seniors is the cheapest way to keep them from turning to more expensive options.

Representative Exum stated that the task force should find ways for seniors to maximize their contribution to the economy.

Senator Kefalas thanked the working groups.

Senator Ulibarri said that keeping older workers in the labor force prevents young folks from entering the workforce, which is also beneficial.

12:41 PM -- Workforce Readiness and Development Working Group

Representative Pettersen began by providing an overview of a presentation the group received on the unemployed and underemployed in Colorado. Representative Pettersen explained that many such individuals do not have a high school diploma and do not speak English very well. The presenter said that access to education and how a child does in school is determined by the education of the parents, especially the mothers. The work group discussed what the legislature has done including the Skills to Compete program and how to get people ready for the workforce. The working group identified access to education through community colleges and working with business to get students ready for the workforce.

Senator Marble said that if the state could improve K-12 education, then students may be better prepared when they get to college and that the state should focus on some vocational training. She would like community colleges to provide affordable and reliable education to students. Senator Marble stated that there was population growth of 330,000 but the labor force only increased by 11,000, meaning that folks dropped out of labor force and that because of the slow growth in the labor force, the unemployment rate is much higher. Senator Marble stated that Colorado has the highest unemployment rate of the surrounding states and that the state needs to give kids a better opportunity to reach the labor force. She explained that further meetings of the working group will look at regulations and small businesses have been invited to come and present to the working group.

Representative Pettersen said the working group found that in Colorado access to adult education is limited and that many people that could take advantage of programs are not participating.

Senator Hudak wanted to know if the working group looked at adult basic literacy. She stated that moving out of poverty and the drop out rate are linked, but there are some adults who are not fully literate and they may need some extra help. The Colorado Department of Education has programs, but state support has been withdrawn for adult literacy programs.

Senator Marble said that the working group discussed English learning and it was noted that if parents are proficient in English then children do better in school. Senator Kefalas added that there are currently no General Fund dollars to support adult basic education and literacy.

12:54 PM -- Housing Continuim Working Group

Senator Ulibarri relayed Representative Saine's apologies for not being able to attend the task force meeting. He continued that presentations will be available to all task force members. He explained that the working group explored issues related to home financing, both now and prior to the recession. Each presenter was asked about challenges and what can be done with and without the General Assembly's help.

Senator Ulibarri stated that most affordable housing is private. He explained that the Department of Corrections also provides housing programs as people reenter the housing market. The programs have reduced recidivism and participants are less likely to end up back in prison. Senator Ulibarri said that the programs help to reduce the General Fund moneys required for the Department of Corrections. The work group wondered if there is a way to measure these dollars and how that would translate into the rest of the budget.

Senator Ulibarri continued by explaining that the Colorado Housing Finance Authority has tax credits that can help develop affordable housing and also has education programs for first time homeowners. He mentioned that when folks have housing they are able to enter labor market which leads to economic development. The presenters stated that until 2008 unique loan products were available under federal law and bond market conditions helped make the products available. Since then, there has been a gap in soft funds available to help with affordable home programs.

Senator Ulibarri discussed Habitat for Humanity and how to provide funding to the program.

The working group discussed how state and federal policies can support local efforts to develop affordable housing.

Senator Balmer discussed incentives for private developers to create affordable housing and how the state may be able to provide an incentive for local governments to allow higher density development.

The committee discussed housing needs for individuals released from Department of Correction and with mental health needs.

01:18 PM -- Public Comment on Working Group Discussion

Randal Loeb, representing himself, said that he is bipolar and has been homeless many times. He stated that many people will never have the opportunity to compete and thinks there should be a bill of rights for homeless and people in poverty. He stated that the homeless have a shorter life expectancy and there is no safety net for the homeless. He described his difficulty finding employment.

Janet Heimer, representing herself. discussed the match savings account, which is a federal program with a local match that allows people to save for a down payment, go back to school, or open a small business.

Rachel Contizano, representing herself, said the discussion on workforce development and community colleges should focus, in part, on the child care available for students going to school.

01:29 PM -- INews Presentation by Bert Hubbard

Senator Kefalas called the task force back to order.

Burt Hubbard, Inews, introduced himself and provided an overview of INews and the collaboration with Rocky Mountain PBS. INews specializes in doing data analysis and has just merged with Rocky Mountain PBS. INews looked at census data and disparities between African Americans and Latinos in Colorado. Mr. Hubbard started a video presentation.

01:40 PM -- Discussion on Video Presentation

Mr Hubbard discussed the video presentation, stating that they looked at census data for 2010 and the impact of the recession in Colorado. There was an increase in child poverty rate during the recession which was all from the African American and Latino populations. He stated that the gaps between ethnic groups in the poverty rate, median family income, and graduation rates have increased since the 1980s. They then went back to 1960 in census data and looked at trends over time. Mr. Hubbard found that the gaps for home ownership declined between 1960 to 1980, but had widened since and it was the same with college degrees before 1980. Income disparities had a similar pattern to home ownership and college degrees.

Mr. Hubbard then explained that they tried to determine what was causing the gaps. They found that Colorado had generally narrow gaps in the 1960s and 1970s and then larger gaps today and INews talked to a lot of people about why that was. He stated it emerged that it was a complex social phenomenon and a whole lot of factors come together at the same time. Civil rights legislation and the war on poverty meant there were some rapid changes in the 1960s and 1970s. The narrowing gaps led to a pull back in some of the policies in the 1980s. In addition to some policy changes, there has been an increase in percentage of single parent families. Percentages are not as high as other states, but there are still gaps between different ethnic groups. He noted that one factor was the loss of manufacturing jobs. For minorities, manufacturing jobs provided an entry into middle class. Inews looked at Pueblo and the steel plant there. Someone could make an equivalent of $60,000 or $70,0000 a year without a college degree and the emphasis for children was not to get a college education because these jobs were available. In Pueblo, the steel plant went from tens of thousands of jobs to 1,300 today. Manufacturers disappeared all over the state.

Mr. Hubbard also explained that they looked at incarceration rates in Colorado. By 2000, one of 20 African American males, one of 50 Latino males, and one of 150 white males were incarcerated. He explained that Colorado fell to 40th percentile in high school education and K-12 spending. He also noted that there was a bigger decrease in higher education and only two other states spend less for higher education.

02:00 PM -- Questions from the Task Force

Senator Balmer asked a question referring to the slide that ranks Colorado at 40th in K-12 spending. Mr Hubbard explained that they looked at total government spending as compiled by census bureau and per pupil spending. Senator Balmer asked for more clarification noting that other rankings he has seen show the state more in 25-30 range. Senator Kefalas mentioned that Legislative Council Staff may have done some memos that compare education spending.

Mr. Hubbard discussed the difficulty isolating the factors that caused the gaps and responded to questions from the committee. The committee and Mr. Hubbard discussed the role of education in the issue.

02:06 PM -- Questions from the audience

Pat Ratliff, Colorado Counties Incorporated, introduced herself and said they will be making a presentation to the early childhood working group and invited other members of the task force to attend. She discussed Senate Bill 12-022 which passed to extend the Child Care Assistance Program.

Randall Loeb, representing himself, introduced himself as an advocate for the homeless. He offered his suggestions to reduce the achievement gap.

Senator Marble, referring to the infant mortality rates in Mr. Hubbard's presentation, asked if genetic or cultural factors had an impact on the health disparities. Mr. Hubbard responded that he did not have a breakdown by genetic factors.

Representative Exum stated that childhood development and education is important to reduce poverty and to help adults get an education. He said that Supplemental Nutrition Assistance Program and Temporary Assistance to Needy Families benefits can really help individuals to complete their education.

02:32 PM -- Presentation on PTC rebate program

Mr. Ron Kirk, Legislative Council Staff, introduced himself to the committee and explained he would be talking about the Property Tax/Heat/Rent Rebate Program. The program provides assistance to low-income seniors. Mr. Kirk distributed a fact sheet (Attachment A). The Finance Committees review the program every two years. He mentioned that three programs provide assistance to elderly residents in Colorado: the Homestead Property Tax Program, which is not dependent on income; the Property Tax Deferral Program, which allows seniors to defer property taxes; and the Property Tax/Rent/Heat Rebate which offsets property taxes, rent or heating for seniors. The PTC program was created in 1972 and was one of the first circuit breaker programs. Circuit breaker programs provide assistance to both renters and homeowners. The program began in 1972 and rebate amounts were increased in 1980. The rebate could be up to $660 per year from 1980 to 1999 and then the grants increased 20% to $792 and grant amounts have not changed since. About 22,000 people receive grants that vary from $0 to $792.

Mr. Kirk described the income limits for the program and mentioned Senator Kefalas requested an audit to see if the program is working as intended by the legislature. The audit will be presented at the next committee meeting.

Mr. Kirk responded to questions from the committee regarding income eligibility limits for the program, the decline in benefits over the years, and whether air conditioning rebates are part of the program.

02:57 PM -- Measures of Poverty

Keshia Duncan, Legislative Council Staff, presented a memo (Attachment B) on the different measures of poverty. She explained how the different measures of poverty are calculated and discussed the differences in what they measure. Specifically, she discussed the federal poverty level, or official poverty rate, the National Academy of Sciences Supplemental Poverty Measure, and the self-sufficiency standard. Each measure includes different definitions of income and measures of what expenses are necessary for different types of families.

03:15 PM -- Questions from the Task Force

Senator Ulibarri discussed the differences between the poverty measures. He asked if the self sufficiency index is available for each county. Ms. Duncan responded that yes, it is available in a report that was given to the committee at a previous meeting.

Senator Kefalas stated that the federal poverty level just looks at adjusted gross income, and wanted to know why the poverty measures are different. Ms. Duncan discussed the difference between the measures.

Senator Kefalas asked about the population that is living in poverty under official poverty line and wanted to know if similar statistics are available for the supplemental poverty measure.

Ms. Duncan said the supplemental poverty measure and National Academy of Science methodologies were just recently released and the data is not available.

Senator Hudak asked how the National Academy of Science adjusted for changes in prices and living standards and Ms. Duncan responded.

Senator Kefalas wanted to know which other states have been able to establish a state specific poverty measure and how they have been used.

Ms. Duncan mentioned that New York convened a commission to study poverty and started using national academy of science guidelines. She explained it has been hard for states to come up with measures because the federal aid programs still use the federal poverty level.

Senator Kefalas discussed data from the state demographer, out-of-pocket medical expenses, and work that the Department of Human Services has done to measure economic well-being.

03:31 PM -- Questions or Comments from the Public

Pat Ratliff, representing Colorado Counties, said she cannot imagine people living on under 24,000 a year.

03:44 PM -- Presentation: Steps to Economic Well-Being Index

Larson Silbaugh, Legislative Council Staff, introduced himself to the committee and provided background information on the process of calculating an economic well-being index. He explained the current deficiencies with federal poverty line metrics, and stated that an economic well-being index instead looks at whether a person has overall good economic well-being. He told the task force members that an index itself does not having meaning unless it is compared to another value of that index. He talked about other well-known indexes and explained elements of the memorandum that he distributed to committee members (Attachment C). Mr. Silbaugh stated that a variety of variables can be included in an economic well-being index, including: income, health care, shelter, child care, employment, transportation, food, and education. He discussed the difficulties with using income as a variable in an index and explained that decisions must be made about how to weight each variable that is included in calculating the index.

03:52 PM

Mr. Silbaugh continued to discuss the examples outlines in the memorandum (Attachment C) and explained how an index with multiple variables can help identify weaknesses across different communities. He stated that another element to consider is which benchmarks to use when comparing how a specific county compares to the state as a whole, or to itself in a previous time period, or when comparing it to a specific goal. He said that when measuring a county against a statewide average, certain problems may arise. He discussed the need to use subjective judgement when determining the purpose of implementing an economic well-being index, as well as the limitations associated with only using an income variable to measure poverty as opposed to a more comprehensive approach.

03:59 PM

Mr. Silbaugh responded to questions from the committee regarding statistical significance and how this might impact the interpretation of data. Senator Kefalas discussed the need to determine what the assumptions of the economic well-being index should be, in a bipartisan manner. Mr. Silbaugh answered questions regarding how to handle issues of missing or outdated data when implementing an index. He explained that one can more easily determine assumptions if there is data from longer periods of time to examine. Senator Kefalas reiterated the need for the task force to determine what assumptions and indicators should be included in the index.

04:08 PM

Senator Kefalas asked Mr. Silbaugh to comment on the work being done by the Colorado Department of Human Services (CDHS) to create an index. Mr. Silbaugh responded that CDHS considered implementing a well-being index and decided that it was better to focus attention on the individual programs that the department already administers, and to look at well-being on an individual level, and not how a county as a whole is performing. Senator Kefalas questioned whether there is an opportunity for collaboration between the task force and CDHS in regards to developing a well-being index.

04:12 PM -- Dr. Mike Cortes, Scholar in Residence at the University of Denver, came to the table to comment on issues associated with defining an economic well-being index through public policy. He said that it is up to the individual to decide how "well off" he or she is at any given time, and asked why income and wealth become a default assumption when determining well-being. He discussed the difficulty of determining indicators for people who are dependent upon others to control their wealth and economic well-being, and stated that it's important to look at education as a proxy for economic opportunity and mobility. Senator Kefalas asked Dr. Cortes to tell the committee about a course he teaches at the University of Denver on public policy development and analysis and about the project he requires his students to complete during their course work. He responded to questions from the committee.

04:24 PM -- Debrief and Future Meeting Agendas

Senator Kefalas asked each task force member to comment on what he or she learned in the meeting and whether he or she had specific topic or agenda ideas for subsequent meetings. Senator Ulibarri stated that the poverty metric conversation was helpful. He said that instead of implementing a poverty index that only examines poverty and wealth, the task force should consider an opportunity index. He discussed the importance of targeting the index to vulnerable populations and stated that there are many independent factors impacting different populations and that these increasing disparities need to be addressed. He suggested examining how to assign value to the impact of legislation at the next meeting. Representative Pettersen commented on the importance of hearing what the working groups are working on and the need to determine how to ensure that the working groups are productive.

04:32 PM

Senator Hudak stated that education is a key factor in economic opportunity and poverty reduction, and discussed the need to teach job search skills and other soft skills, and for different state departments to work together more collaboratively. She commented on the duplication of work done by different working groups, as well as issues of funding. She stated that the task force must determine a clear policy agenda as opposed to presenting a random a collection of legislation. Senator Marble discussed the need for an opportunity index, as well as ways to increase business expansion for job growth and employment opportunities. She thanked the public for their input. Senator Kefalas asked Senator Marble to speak about the upcoming agenda for the workforce readiness working group, specifically in regards to business regulations.

04:41 PM

Senator Kefalas stated that the purpose of task force is: to determine how to identify best and promising practices to reduce poverty rates and increase economic opportunity; to reframe the conversation surrounding poverty; and to cut the poverty rate in half by 2019. He reiterated the mission and purpose of the working groups and the role of the working groups within the entire task force. He stated the importance of prioritizing what legislation the task force brings forward, as well as other recommendations that can be made administratively. He discussed the need to develop a functional promising practices database and to develop a poverty metrics system, whether it's a well-being index or opportunity index. Senator Kefalas discussed the agenda for the next meeting on September 4. Senator Hudak requested time at the next meeting to begin discussions about legislation to bring forward.

04:52 PM

The committee adjourned.

STATE OF COLORADO

TAXPAYER SERVICES DIVISION
Department of Revenue

1375 Sherman Street
Denver, CO 80261

John W. Hickenlooper
Governor

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Executive Director

Property Tax/Rent/Heat Rebate Update

The Colorado Property Tax/Rent/Heat (PTC) Rebate program was introduced in 1972 and designed to provide property tax assistance to low-income Colorado residents over age 65 and to surviving spouses over age 58. The program was modified in 1980 to allow for assistance with heat expenses. In 1987, assistance was extended to disabled persons who fall under the age limitation.

Funds for the rebate are allocated from the General Fund and are continuously appropriated by a permanent statute; §39-31-102, C.R.S.

Filing Statistics
The following chart illustrates a recent history of PTC filings:

Fiscal year ending June 30	2005	2006	2007	2008	2009*	2010*	2011*
Number of PTC Returns	44,620	38,827	30,399	36,200	26,058	23,595	24,206
Total Rebates Issued	$16,787,635	$15,731,515	$13,917,904	$11,676,772	$8,255,633	$7,581,317	$7,373,322
Average Rebate	$376	$405	$458	$323	$317	$321	$305
% Change - Number of Returns		-13.0%	-21.7%	19.1%	-28.0%	-9.5%	2.6%
% Change - Total Issued		-6.3%	-11.5%	-16.1%	-29.3%	-8.2%	-2.7%
% Change - Average Rebate		7.7%	13.0%	-29.6%	-1.8%	1.4%	-5.2%

*Change in accounting systems - Prior system tracked the number of PTC credit transactions, while the new system accounts for the number of filers who received the rebates. The new system is a more accurate accounting.

The benefit amount is determined by the income of the applicant. Income of the applicant cannot exceed a set (phase out) threshold to qualify. Prior to FY2009, the numbers of qualified applicants declined due to annual increases in Social Security income and disability payments. This was further evidenced by decreased average rebate amounts, which were a function of increased income coupled with the phase out rules. Beginning in FY2009, legislation was enacted to increase the phase out threshold and index for inflation.

The number of qualified applicants may also be affected by other various economic factors.

Prior to FY2007, qualified Colorado residents were able to obtain the credit without having to affirm lawful presence. The change in this requirement might explain the decline of returns filed in FY2007.

PTC Rebate Amounts and Phase Out Rules

The total PTC rebate amount is derived from two components; the first being property tax or rent, and the second being heat expense. To calculate the rebate the maximum credit allowed for each component is reduced by a percentage of the gross income that exceeds the base income level. This is demonstrated as follows:

	1998 law	1999-2007 law	2008 law*	2009	2010	2011
Maximum Property Tax/ Rent Rebate	$500	$600	$600	$600	$600	$600
Maximum Heat Rebate	$160	$192	$192	$192	$192	$192
Maximum PTC Rebate allowed	$660	$792	$792	$792	$792	$792
Base income level – Single	$5,000	$5,000	$6,000	$6,102	$6,133	$6,313
Base income level – Married	$8,700	$8,700	$9,700	$9,864	$9,913	$10,205
% of income over base that reduces the property tax/rent rebate that can be claimed	20%	10%	10%	10%	10%	10%
% of income over base that reduces the heat rebate that can be claimed	6.40%	3.20%	3.20%	3.20%	3.20%	3.20%
Income level where phase out reduces the rebate to $0 - Single filer	$7,500	$11,000	12,000	$12,102	$12,133	$12,313
Income level where phase out reduces the rebate to $0 - Joint filer	$11,200	$14,700	15,700	$15,864	$15,913	$16,205

* For years after 2008 the income levels are indexed for inflation.

Poverty Statistics

The following poverty statistics are provided to assist in the analysis of the PTC statistics:

	Related children under 18 years								
Size of family unit	None	One	Two	Three	Four	Five	Six	Seven	Eight+
One person (unrelated individual)									
Under 65 years	11,702								
65 years and over	10,788								
Two people									
Householder under 65 years	15,063	15,504							
Householder 65 years and over	13,596	15,446							
Three people	17,595	18,106	18,123						
Four people	23,201	23,581	22,811	22,891					
Five people	27,979	28,386	27,517	26,844	26,434				
Six people	32,181	32,309	31,643	31,005	30,056	29,494			
Seven people	37,029	37,260	36,463	35,907	34,872	33,665	32,340		
Eight people	41,414	41,779	41,027	40,368	39,433	38,247	37,011	36,697	
Nine people or more	49,818	50,059	49,393	48,835	47,917	46,654	45,512	45,229	43,487
Source: US Census Bureau 2011 Poverty Thresholds									

2011 U.S. Dept of Health and Human Services poverty guidelines for 48 contiguous states and Washington DC

Family Unit		Threshold
One person	$	10,890.00
Two persons	$	14,710.00
Three persons	$	18,530.00
Four persons	$	22,350.00
Five persons	$	26,170.00
Six persons	$	29,990.00
Seven persons	$	33,810.00
Eight persons	$	37,630.00
For each additional person, add	$	3,820.00

House Bill 12-1253 (as introduced)

Maximum Property Tax/ Rent Rebate	$600
Maximum Heat Rebate	$192
Maximum PTC Rebate allowed	$792
Base income level – Single	$6,313
Base income level – Married	$10,205
% of income over base that reduces the property tax/rent rebate that can be claimed	10%
% of income over base that reduces the heat rebate that can be claimed	3.20%
Income where phase out reduces the rebate to $0 - Single filer	$12,313
Income where phase out reduces the rebate to $0 - Joint filers	$16,205
Expanded Income range - Single filer	$10,040 - $28,000
Expanded Income range - Joint filer	$13,932 - $32,000
Minimum Property Tax/Rent Rebate for expanded rule	$227
Minimum Heat Rebate for expanded rule	$73
Minimum Rebate for expanded rule	$300

Colorado Legislative Council Staff

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MEMORANDUM

August 21, 2013

TO: Economic Opportunity and Poverty Reduction Task Force

FROM: Keshia Duncan, Economist, 303-866-6289

SUBJECT: Measures of Poverty

Summary

While only the federal poverty level (FPL) is known as the official poverty measure, a number of other poverty measures exist. The National Academy of Sciences (NAS) measure and Self-Sufficiency Standard are two such measures, each seeking to provide a more adequate and regionally specific measure of the basic needs of individuals and families. The FPL, NAS measure, and Self-Sufficiency Standard each differ in the assumptions, data sources, and calculations employed to measure a threshold that identifies those living in poverty (unable to meet their basic needs) and those living above poverty. Because of these differences, all three measures identify different populations as living in poverty.

This memorandum provides information and a comparison of the use and calculation of three measures of poverty: (1) the federal poverty level, also known as the official poverty measure; (2) the NAS poverty measure; and (3) the Self-Sufficiency Standard. Attached to this memorandum is additional material on these measures, including:

- the executive summary of the 2011 report on the Self-Sufficiency Standard for Colorado;
- the summary and recommendations of the National Academy of Sciences 1995 report titled *Measuring Poverty: A New Approach*;
- Appendix A, consisting of a table summarizing the differences between measures; and
- Appendix B, consisting of the FPL guidelines from 1982 to 2013.

Comparing Poverty Measures

Each of the three poverty measures discussed in this memorandum differ in how they define and measure poverty. As a result, the population considered living in poverty differs depending on the measure employed.

How is poverty measured? The Self-Sufficiency Standard aims to measure the amount families need to make in wages to be self-sufficient or to meet their basic needs without public or private assistance.[1] In contrast, both the NAS and FPL aim to measure the number of persons living in poverty. A poverty threshold or poverty line is a minimum income level under which individuals are unable to meet their basic needs for survival or participation in society. Both the NAS and FPL measures are used to calculate a poverty rate, or the percentage of individuals living in poverty relative to the general population. The following two equations summarize the relationship between the poverty threshold, family resources (money and near-money income), and the poverty rate for the NAS and FPL measures.

Individuals living in poverty = Individuals whose resources fall below the poverty income level

Poverty rate = Individuals living in poverty / total population

Differences in definitions of basic needs and family resources. Each of the three measures identify a threshold of basic needs. Each measure also defines the resources a family needs for obtaining basic necessities. Table 1 summarizes differences in definitions of basic needs and family resources between poverty measures.

Table 1
Comparing Measures: Definitions of Basic Need and Family Resources

Poverty Measure	Basic Needs Threshold	Resources for Obtaining Basic Needs
FPL	*Poverty threshold (or poverty line)*: Annual cost of food in 1955 multiplied by three, adjusted by inflation each year	*Money income before taxes*
NAS Poverty Measure	*Poverty threshold (or poverty line)*: Cost of food, clothing, shelter, utilities, medical care costs*, and miscellaneous needs	*Disposable income*: After-tax money income plus specific tax credits, plus near-cash value of assistance programs (such as food stamps), minus work-related expenses (such as child care and transportation)
Self-Sufficiency Standard	*Self-Sufficiency Standard*: Cost of food, housing, transportation, child care, health care, and miscellaneous necessities, taxes and tax credits, and adjustments in cost based on participation in assistance programs	*Self-Sufficiency Wage*: Total family wages

**Medical costs were originally excluded but have been included in the calculation of the measure in other studies.*

Who is living in poverty? Populations considered to be living in poverty differ based on differences in how poverty is measured. The FPL, NAS measure, and Self-Sufficiency Standard each identify different thresholds for basic needs as well as family resources for obtaining those needs and, as a result, each also identify different groups of people living in poverty. Table 2 summarizes the basic needs thresholds for each measure for Colorado. The NAS poverty

[1] Pearce, Diana. "The Self-Sufficiency Standard for Colorado 2011" Fiscal Policy Institute, October 2011.

threshold is 8.1 percent greater than the FPL in 2011. While the Self-Sufficiency Standard does not have a poverty threshold, it does have a threshold distinguishing those requiring public or private assistance and those who are self-sufficient. The continuum is not calculated statewide, therefore the county ranges for the measure as well as county average is shown for the year 2011. Differences in child care, housing, and tax costs account for the majority of differences between counties.

Table 2
Colorado Basic Needs Thresholds
(Family of Two Adults and Two Children)

FPL, 2011*	NAS Measure Threshold, 2011**	Self-Sufficiency Standard, 2011***
$22,350	$24,170	Low: $38,224 (Kit Carson County) High: $72,408 (Pitkin County) 64 County Average: $52,088

* *U.S. Census Bureau.*
** *Legislative Council Staff calculations.*
*** *Diana Pierce (2011); Self-Sufficiency Standard for a family with two adults, one pre-schooler, one school age child.*

Official Poverty Measure/FPL

Origin and use. The federal poverty level was developed in the early 1960s by statistician Mollie Orshansky as an indicator of the number of people with inadequate income to cover the costs of a minimum food diet and other necessities. Official poverty thresholds are updated each year by the Census Bureau. The thresholds are used mainly for statistical purposes, such as preparing estimates of the number of Americans in poverty each year or the poverty rate.

The FPL takes the Census Bureau information and simplifies it to determine financial eligibility for certain federal programs, such as Head Start, the National School Lunch Program, and the Children's Health Insurance Program. Other programs such as the Low-Income Home Energy Assistance Program (LEAP) use the guidelines for the purpose of giving priority to lower-income persons or families in the provision of assistance or services. Attached in Appendix B are the FPL guidelines from 1982 through 2013.

Calculating the FPL. The FPL is based on the share of a household's budget that is spent on food. The share was calculated using data from the 1955 Household Food Consumption Survey. Based on the survey, annual food spending was calculated as approximately one third of spending on necessities. Therefore, the poverty threshold was set at the annual cost of food multiplied by three. Each year the threshold is grown by inflation as measured by the national consumer price index for all urban areas (CPI-U). The following equations summarize the threshold for the official poverty measure:

Original threshold = 3 × Annual cost of food prepared at home based on a 1955 survey

Official poverty threshold = Original threshold increased annually by inflation

Original thresholds were calculated for individuals and families differently based on the number of members in a family and age of individuals. Thresholds differ for children, adults, and the elderly. All states within the contiguous United States have the same poverty threshold each year. Changes in the standard of living are not accounted for in the measure. Instead, the measure is reflective of living standards from the 1950s. Therefore, inflation adjustments account for the change in cost of the standard of living from this time period. Government assistance programs, such as food stamps and housing assistance are not included when calculating if a family's resources exceed the official poverty measure. When a person or family's resources as measured by their money income before taxes is less than the threshold, they are considered living in poverty. According to the Census Bureau, the 2011 poverty rate for individuals and families in the state of Colorado is 12.5 and 8.7 percent, respectively, compared to national rates of 14.3 and 10.5 percent.[2]

National Academy of Sciences (NAS) Poverty Measure

Origins and use. At the request of Congress, the National Academy of Sciences (NAS)[3] created the Panel on Poverty and Family Assistance in 1992 to conduct a comprehensive examination of poverty measurement in the United States. The panel published their findings in a 1995 report titled *Measuring Poverty: A New Approach*. The summary and recommendations of this report are attached to this memorandum. The report recommends the revision of the official poverty measure to reflect the circumstances (basic needs and family resources) of families over time and outlines a method for calculating the measure.

Since the report was published in 1995, the recommendations of the report have not been adopted nationwide, though legislation has been introduced to do so. In 2009, the Office of Management and Budget formed an Interagency Technical Working Group to develop a supplemental poverty measure. The working group, led by the U.S. Census Bureau and Bureau of Labor Statistics, founded the Supplemental Poverty Measure which calculates poverty similar to some of the guidlines suggested in the NAS measure. This new measure has not been officially adopted and is designed to be used as an informational tool. Additionally, in 2006 New York City Mayor Michael Bloomberg convened a Commission to study poverty measurement in New York City. Finding inadequacies in the official poverty measure, Mayor Bloomberg created the New York City Center for Economic Opportunity which adopted a poverty measure based on the NAS methodology.

Calculating the NAS measure. The public and scientific community continue to shape how the NAS measure is calculated. Based on recent publications and the 1995 NAS report, the NAS threshold is first calculated for a reference family of four (two adults, two children) then later adjusted for differences in family type (number of adults and children). Basic needs for the reference family are calculated as the percentage of national median expenditures on food, clothing, shelter, utilities, and miscellaneous necessities. Medical costs were excluded from the original 1995 report, but have since been included in the calculation in other studies.[4] Regional differences are adjusted based on differences in housing rental costs. The NAS panel recommended that the measure be calculated annually to account for changes in consumer prices and living standards.

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[2] U.S. Census Bureau, American Community Survey five-year estimates (2007 to 2011).

[3] The National Academy of Sciences (NAS) is a private, non-profit corporation composed of distinguished scholars who engage in scientific research at the request of Congress.

[4] Garner and Short. "Creating a Consistent Poverty Measure over Time Using NAS Procedures: 1996-2005." U.S. Bureau of Labor Statistics Working Paper No. 417, April 2008.

Family resources are defined as after-tax money income and near-money income from assistance programs, including food stamps and housing assistance. Additionally, specific tax credits are added to income and work-related expenses, including transportation and child care costs, are subtracted. If family resources are less than the basic needs threshold, a family is considered to be living in poverty.

While no formal NAS measure has been calculated for Colorado, Legislative Council Staff (LCS) calculated estimates of the NAS threshold for the year 2011 using the NAS methodology. These estimates are summarized in Table 3, comparing the LCS estimates for Colorado to the threshold for the United States. The Colorado threshold is 6 percent larger than the nationwide threshold, reflecting higher rental prices in Colorado than the nation. Due to data limitations, an estimate of the Colorado poverty rate using the NAS measure cannot be calculated at this time.

Table 3
NAS Poverty Measure Threshold for Colorado and the United States, 2011
(Family of Two Adults and Two Children)

	Colorado	United States
Shelter and Utilities	$11,396	$10,037
Non-Shelter Necessities	$12,774	$12,774
Poverty Threshold	$24,170	$22,811

Source: U.S. Census Bureau and Legislative Council Staff calculations.

Calculating the Supplemental Poverty Measure (SPM). The SPM, which is largely based on the suggestions from the NAS, is defined by the Interagency Technical Working Group as an internally consistent poverty measure that is based on spending outflows and money inflows[5]. It is considered an informational tool and is not a replacement for the FPL. The SPM measures all related individuals who live at the same address, including co-resident unrelated children, co-habitors, and relatives. The threshold is the 33rd percentile of expenditures on food, clothing, shelter, and utilities for families with exactly two children multiplied by 1.2. Adjustments are made for geographic differences in housing costs and updates are on a five year moving average of expenditures. Family resources are defined as the sum of cash income, plus federal benefits, minus taxes, work expenses, out-of-pocket medical expenses, and child support paid to another household. In 2011, the national offical poverty rate was 15.1 percent, while the SPM was 16.1 percent.

The Self-Sufficiency Standard

Origins and use. The Self-Sufficiency Standard defines the income families require in order to meet their basic necessities without public or private assistance. The standard was first developed by Dr. Diana Pearce for Wider Opportunities for Women in response to the perceived inadequacies of the FPL in 1996. Dr. Pearce continues to calculate the standard for numerous states each year. The standard was calculated for Colorado for the Fiscal Policy Institute in 2001, 2004, 2008, and 2011. Attached to this memorandum is the executive summary of the 2011 Self-Sufficiency Standard report.

[5] Short. "The Research Supplemental Poverty Measure: 2011" U.S. Department of Commerce Economics and Statistics Administration Working Paper P60-244, November 2012.

Calculating the Self-Sufficiency Standard. The standard is calculated for 152 different family types in each of Colorado's counties. Family types differ based on the number of adults, number of children, and age of children in a family. Based on the family type, monthly costs of basic necessities are calculated by category (e.g., food, housing, transportation) based on available data and are adjusted based on regional costs and benefits from assistance programs such as food stamps and federally assisted housing. Taxes and specific tax credits are also included in the standard. The total of all costs for each category is equal to the "Self-Sufficiency Wage", and represents the total household wage necessary for a family to be self-sufficient. Table 4 below provides the 2011 Self-Sufficiency Standard for two family types in Larimer County.

Table 4
2011 Self-Sufficiency Standard for Selected Family Types: Larimer County

	One Adult, One Preschooler		Two Adults, One Preschooler, One School Age Child	
Monthly Costs	**Costs**	**% of Total Costs**	**Costs**	**% of Total Costs**
Housing	$849	24	$849	18
Child Care	$961	27	$1,410	29
Food	$351	10	$723	15
Transportation	$243	7	$462	10
Health Care	$348	10	$426	9
Miscellaneous	$275	8	$387	8
Taxes	$676	19	$861	17
Earned Income Tax Credit	$0	0	$0	0
Child Care Tax Credit	($53)	-2	($100)	-2
Child Tax Credit	($83)	-3	($167)	-4
Total	$3,567	100	$4,851	100
Self-Sufficiency Wage				
Hourly	$20.27		$13.79 (per adult)*	
Monthly	$3,567		$4,853	
Annual	$42,803		$58,232	

**Hourly wages for families with multiple adults represent the hourly wage that each adult would need to earn, while the monthly and annual wages represent all adults' wages combined.*
Source: Pearce (2011).

Appendix A
Comparison of Three Measures of Poverty

	Official Poverty Measure (FPL)	NAS Poverty Measure	Self-Sufficiency Standard
What is measured?	Number of individuals and families living in poverty	Number of individuals and families living in poverty	Amount families need to make in wages to meet their basic necessities without public or private assistance
How is the measure used?	Determining poverty status, used for statistical purposes, determining eligibility for assistance programs	Determining poverty status, used for statistical purposes, determining eligibility for assistance programs	Tool for policy analysis, counseling, performance evaluation, and research
Definitions			
Basic needs	Annual cost of food from a 1955 survey multiplied by three	Cost of food, clothing, shelter, utilities, and miscellaneous needs; medical costs may or may not be included	Cost of food, housing, transportation, child care, health care, and miscellaneous necessities, taxes and tax credits, and adjustments in costs based on participation in assistance programs
Family resources	Money income before taxes	Disposable income: After-tax money income plus specific tax credits, plus near-cash value of assistance programs (such as food stamps), minus work-related expenses (such as child care and transportation)	Family wages
Adjustments			
Reference group	Individuals and families based on the size and number of children and elderly	Individuals and families based on the size and number of children	Individuals and families based on the number of adults and children and children's ages
Regional	None. The 48 contiguous states in the U.S. have the same poverty threshold	Adjusted based on regional differences in housing rental costs	Calculated separately for each county
Inflation	Adjusted for inflation each year	Calculated annually and adjusted for inflation	Reflects the purchasing power of dollars for the years it is calculated
Standard of living	None. The measure is reflective of living standards in the 1950s	Calculated annually to account for changes in living standards	Reflects the standard of living for years it is calculated
Metrics			
How is the measure reported?	Poverty threshold, rate, and number of individuals and families living in poverty	Poverty threshold, rate, and number of individuals and families living in poverty	Self-Sufficiency Standard tables for 70 family types for each county

Appendix B: Federal Poverty Guidelines for the 48 Contiguous States and the District of Columbia

Year	First Person	Each Additional	Four-Person
2013	$11,490	$4,020	$23,550
2012	$11,170	$3,960	$23,050
2011	$10,890	$3,820	$22,350
2010*	$10,830	$3,740	$22,050
2009	$10,830	$3,740	$22,050
2008	$10,400	$3,600	$21,200
2007	$10,210	$3,480	$20,650
2006	$9,800	$3,400	$20,000
2005	$9,570	$3,260	$19,350
2004	$9,310	$3,180	$18,850
2003	$8,980	$3,140	$18,400
2002	$8,860	$3,080	$18,100
2001	$8,590	$3,020	$17,650
2000	$8,350	$2,900	$17,050
1999	$8,240	$2,820	$16,700
1998	$8,050	$2,800	$16,450
1997	$7,890	$2,720	$16,050
1996	$7,740	$2,620	$15,600
1995	$7,470	$2,560	$15,150
1994	$7,360	$2,480	$14,800
1993	$6,970	$2,460	$14,350
1992	$6,810	$2,380	$13,950
1991	$6,620	$2,260	$13,400
1990	$6,280	$2,140	$12,700
1989	$5,980	$2,040	$12,100
1988	$5,770	$1,960	$11,650
1987	$5,500	$1,900	$11,200
1986	$5,360	$1,880	$11,000
1985	$5,250	$1,800	$10,650
1984	$4,980	$1,740	$10,200
1983	$4,860	$1,680	$9,900
1982	$4,680	$1,540	$9,300

Source: U.S. Department of Health and Human Services.

**Legislation enacted in late 2009 and early 2010 prohibited publication of 2010 poverty guidelines before May 31, 2010, and required that the 2009 poverty guidelines remain in effect until publication of updated guidelines. Legislation to further delay publication of the 2010 guidelines did not pass. The procedure for updating the 2010 guidelines was modified to take into account the Consumer Price Index (CPI-U) for the period for which their publication was delayed. As a result, the poverty guideline figures for the remainder of 2010 were the same as the 2009 poverty guideline figures.*

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MEMORANDUM

Pursuant to section 24-72-202(6.5)(b), research memoranda and other final products of Legislative Council Staff research that are not related to proposed or pending legislation are considered public records and are subject to public inspection. If you think additional research is required and this memorandum is not a final product, please call the Legislative Council Librarian at (303) 866-4011 by July 26, 2012.

July 19, 2012

TO: Representative John Kefalas

FROM: Larson Silbaugh, Economist, 303-866-4720

SUBJECT: Considerations in Developing and Economic Well-Being Index

This memo presents a discussion of different aspects to consider when developing an economic well-being index. The discussion focuses on the methodology to be used and the strengths and limitations of choosing how to calculate the index in certain ways. Understanding the strengths and weaknesses of each approach will lead to designing an index best suited for the intended purposes. Examples to aid in the understanding of the methodology are also provided.

Summary

Before calculating an economic well-being index, Legislative Council Staff would need direction in the following areas:

- which well-being capabilities to use in an index and how to weight the various measures of well-being,
- whether a single index or multiple indices should be calculated,
- which benchmark to use to measure economic well-being, and
- how to treat missing or old data.

Purpose of an Economic Well-Being Index

The purpose of the capability approach to economic well-being is to determine a population's economic well-being. Using this approach, income is not used, but other indicators associated with well-being are substituted to measure the outcomes associated with higher incomes. When developing and calculating an index there are certain methodologies that are more appropriate, depending on how the index will be used.

What is an Index?

An index is a way to compare values to some benchmark. In this case, publicly available data will be used to compare different counties across the state for various types of well-being. The simplest way to calculate an index is to divide the value for a certain population by the benchmarked value. Example 1 demonstrates how an income index would be calculated to compare median income in Larimer County to median income statewide.

Example 1
Calculating an Index for Median Household Income

Larimer County Median Household Income, 2010: $54,154
Colorado Median Household Income, 2010: $54,046
Median Household Income Index for Larimer County= $54,154 / $54,046 = 1.002

An index could be calculated for each county in Colorado. A higher index represents higher household income. It is easy to interpret this index, median household income is 0.2 percent higher in Larimer County than the state as a whole, but that can be easily understood by comparing the income levels alone. In addition, calculating median household income does not necessarily equate to economic well-being. Is this sufficient income to provide housing or healthcare? The concept behind the capability approach to economic well-being is to move past income and measure other measures of well-being.

Adding these different measures of well-being adds complexity to the calculation of an economic well-being index. The rest of this memo discusses some of these complexities. The complexity of the index can add value and insight into the measurement of economic well-being, but the trade off is that the interpretation of the index becomes more difficult, data requirements increase, and the application of the index becomes more specific.

Included Variables and Weighting

One of the benefits of using the capability approach is that it uses a broader view of economic well-being than simply using a single measure, such as income. This fact requires that more variables are used to calculate the index. A decision must be made about which variables to include. In a previous presentation to the Economic Opportunity Poverty Reduction Task Force Metrics Committee, the capabilities included were education, mobility, employment, shelter and health. The

Human Development Index (HDI), a well known international capability index, uses health, knowledge, and income to compare countries to each other. There are other capabilities that could be included, such as entrepreneurship or crime statistics. Deciding which capabilities to include when calculating a well-being index implicitly leaves out some aspects of well-being. These exclusions may be either unintentional, theoretical, or practical.

Leaving a capability out of the index *unintentionally* is possible, but not really preventable. An example of leaving a capability out of the index for *theoretical* reasons would be income. The purpose of the capability approach to well-being is to measure how a population is doing relative to other groups, but income could be argued to influence well-being. The other type of exclusion would be *practical*. In general, this may occur when a capability is difficult to measure or is measured infrequently. Hard-to-measure capabilities are difficult to include in an index because it is not clear that the data are meaningful. An example of this at the international level would be freedom. Freedom is usually assumed to improve well-being, but it is almost impossible to meaningfully measure. An example of infrequently measured variables in Colorado would be county level non-farm employment. These data are based on establishment survey data, which are only conducted for the seven largest metropolitan areas in the state.

Once the variables are chosen, one must decide how to weigh them, or how much each variable should influence the index. Deciding how variables are weighted in an index necessarily requires making a value judgement. If an index were calculated using five capabilities (for example health, education, employment, mobility, and shelter) you could weight them various ways. The only requirement is that the weights equal 1.0. Example 2a-2c shows three different ways these five capabilities could be weighted:

Example 2a
Equally Weighted

.20(Health) + .20(Education) + .20(Employment) + .20(Mobility) + .20(Shelter) = Index

Example 2b
More Weight on Health and Education

.35(Health) + .35(Education) + .10(Employment) + .10(Mobility) + .10(Shelter) = Index

Example 2c
No Weight on Mobility

.25(Health) + .25(Education) + .25(Employment)+ .00(Mobility) + .25(Shelter) = Index

The index in example 2a weighs each of the five capabilities equally. This means that when interpreting the index, none of the capabilities is more important to economic well-being than any other capability. Example 2b uses higher weights on health and education to emphasize these measures when considering economic well-being. Example 2c has four equally weighted measures, and no weight on mobility. This choice places no value on mobility.

A similar issue arises when more than one variable is used to measure a capability. Multiple variables are available to measure education, health, employment, mobility and shelter. These multiple variables can all be used to generate an index for each of the capabilities. In a previous memo, 12 data points were identified that could be used in an index for health, seven for education, five for employment, four for shelter, and four for mobility. For example, when computing a health index, it is not clear if life expectancy contributes more to well-being then access to care. This determination must be made for all 12 of the available measures, which requires some value judgement for each individual capability.

The county health rankings, an index published by the Robert Wood Johnson Foundation and the University of Wisconsin, has clear documentation on the weights that are placed on health measures. These weights are developed by health experts. The HDI weights health, knowledge, and income equally.

Before proceeding with calculating an economic well-being index, Legislative Council Staff would need direction on the capabilities to include and the weighting of those capabilities.

Single or Multiple Indices

The amount of data available for various measures of well-being make it possible to create an index for each of those measures. A single index is a way to synthesize well-being across many different measures and see how a population is doing overall, but this may make it more difficult to identify certain aspects of well-being that could be improved upon. Example 3 uses Larimer County to demonstrate how high index measures in certain capabilities can mask low index measures in other capabilities. For simplicity, each of the four capabilities of health, education, employment, and shelter are equally weighted.

Example 3
Single Index or Multiple Indices

Capabilities	Variable	Index
Health	Unhealthy days, inverted	1.032
Education	Percent of adult population with at least a HS diploma	1.058
Employment	Percent of population 16 years old and over that are employed	1.003
Shelter	Percent of occupied rental units with rent less than 30% of household income	0.946
Single Index		
Single Index = .25 x (1.032 + 1.058 + 1.003 + 0.946)		1.010

Each of the indices use a single variable to measure a capability and is calculated by dividing the data point for Larimer County by the statewide value. For health, the average number of unhealthy days in the past 30 days reported between 2006 and 2010 was used. This was inverted, so that a higher score represents a healthier population. For education, the percent of high school graduates as a percent of the over 25 population in 2010 was used. For employment, the percent of the population 16 years and older that reported being employed in 2010 was used. For shelter, the percent of occupied rental units that paid more than 30 percent of annual household income in rent in 2010 was used.

Because the single index in Example 3 is greater than 1.000, it can be interpreted that Larimer County is better off than the state as a whole, but this is due to high scores for education and health. The shelter index is actually below the statewide average, meaning that renters pay a higher percentage of household income in rent then the state as a whole.

Computing more than one index for different capabilities adds to the resources needed to calculate an economic well-being index and increases the data requirements. In addition, it can add complexity to the interpretation of economic well-being, but adds to the understanding of what measures contribute or hurt economic well-being for a given population. The HDI publishes four indices; an overall index, an index for health, an index for knowledge, and an index for standard of living.

Before computing an economic well-being index, Legislative Council Staff would need direction on whether to calculate a single index or multiple indices for separate capabilities.

Which Benchmark to Use

One of the main purposes of an index is to compare two sets of things. It can be to compare between time periods, between nations, or to some benchmark or goal. In the previous examples, Larimer County has been compared to the state as a whole. This approach does not directly measure how economic well-being compares to economic well-being in a previous period or how well-being is measured against some goal. Example 4 shows three different indices for education, using the statewide average, high school attainment in 2000, and against the goal of 100 percent high school graduation.

Example 4
Percent of Population 25 years or Older with a High School Diploma

	Value	Index for Larimer County
Larimer County, 2010	94.9 percent	
Statewide, 2010 (Compare to State)	89.7 percent	1.058
Larimer County, 2000 (Compare over Time)	92.3 percent	1.028
Goal (Compare to Goal)	100 percent	0.949

By using different benchmarks, an index can measure different things. Using the statewide average compares how Larimer county is doing relative to the rest of the state, but not if it is improving over time. Using the statewide average may actually result in some counties having lower index values if the statewide average increases, even if the measure for well-being improved for that population. Using a previous time period shows how each county is doing over time, but not how it is doing relative to other counties in the state. It may be difficult to find data on previous time periods for some measures of well-being, so there is an added data requirement when using a previous time period as the benchmark. Using a goal as the benchmark is another way to measure a county's well-being, but it can be difficult to choose an appropriate goal.

The County Health Rankings uses other counties to determine the rankings. Some examples of indices over time include the Consumer Price Index and the major stock indices. The HDI uses goals that are based on the highest observed measures of countries each year. For example, the life expectancy in 2011 in Japan was 83.4 years, the maximum value for any country. This was used as the benchmark for the rest of the countries for which the HDI was calculated.

Before proceeding with calculating an economic well-being index, Legislative Council Staff would need direction on which benchmark to use. If a goal is chosen as the benchmark, then appropriate goals would need to be developed.

State of the Data

Another complication with designing an economic well-being index is the state of the data that are used to calculate the index. Data could be missing, infrequent, or in a form that does not allow for comparison between counties. Excluding these data from an index may not capture important indicators of economic well-being, but including they may cause difficulty in interpreting the results.

In general, better data are available for larger populations. There are more data at the state level than the metropolitan area (MSA), and more data at the MSA level than the county level. Limiting data used in a county level index to only county level data ensures that each county has a unique value and reading for economic well-being, but it may exclude important information on well-being. One option is to use MSA or other level of data where available, and use the statewide average or the average index value for populations that do not have a unique value. This will keep missing data from increasing or decreasing the index value. For American Community Survey data, one way to get more reliable data for each county is to use a longer sample period.

In addition, data are released at various time periods and intervals. County level Census data are released once every 10 years. County level local area employment statistics are released monthly. If the index is calculated only when *all* of the data are new, then it may not be calculated frequently enough to be useful in tracking changes in economic well-being. If the index is calculated each time some information is released, then there might not be much new information so the index would not reveal any meaningful change in well-being. One way to include as much information as possible, and have a somewhat current index, is to use the most recent data available. In some cases, these data could be more than a year old and not all values would be from the same year.

Another data limitation in calculating an index is that data needs to be comparable between counties. Rates and per-capita measures are most meaningful because it allows the comparisons between counties across the state. For example, the total number of high school graduates is not comparable between Denver and Larimer Counties because Denver has a much larger population. The percent of the population with a high school diploma is a more appropriate measure because it allows comparison between counties of all sizes. Most data sets have information that can be used to compare populations of different sizes, but there are a few exceptions.

Before calculating an economic well-being index, Legislative Council Staff would need direction on how to treat old or missing data.

Summary

An economic well-being index can provide insights into comparing well-being between counties for a broad range of capabilities, but there are different ways to design and calculate an index. The methods depend on the intended use of the index and the judgements that must be made regarding the weighting of different measures of well-being. Before calculating an economic well-being index, Legislative council staff would need direction in the following areas:

- which well-being capabilities to use in an index and how to weight the various measures of well-being,
- whether a single index or multiple indices should be calculated and reported,
- which benchmark to use to measure economic well-being, and
- how to treat missing or old data.